

**Blacktail Watershed Assessment**  
**Executive Summary and Authorized Officer's**  
**Determination**



**Bureau of Land Management**  
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This document summarizes the findings of the Blacktail Watershed (BTW) Assessment conducted during the 2006 field season. The assessment area covers approximately 63,261 acres of public land administered by the Bureau of Land Management (BLM) in Beaverhead and Madison Counties, Montana. The BTW includes nearly 53,100 acres within twenty grazing allotments, 6,088 acres that are unleased (the Blacktail Stock Driveway) and 4,073 acres are unallotted. The unallotted acres lie within the Blacktail Mountain Wilderness Study Area (WSA) in the northwest portion of the watershed.

The table below summarizes the determination of Rangeland Health Standards by allotment. It also briefly describes resource concerns identified by the interdisciplinary team (IDT) and preliminary recommendations to mitigate these concerns and revise management where deemed necessary.

The BLM is currently working on National Environmental Policy Act (NEPA) documentation. The NEPA document will include all BLM-administered public lands covered in the BTW. Alternative management will be analyzed wherever it is determined that allotments are not meeting the Standards, allotments are meeting the Standards but have site specific resource concerns, or unhealthy forest and/or fuels conditions are outside the natural range of variability.

Allotment Name Number Category & BLM acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns (including discernable cause of resource concern)	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Blacktail Road Trailing 30603 (I) Acres: 484	YES	NO	NO	YES	NO	1. Livestock trailing and use along BT2 causing excessive hummocking and streambank impacts. 2. Road use and maintenance along BT2 causing excessive sediment input and may be affecting sensitive plant habitat. 3. Blacktail Deer Creek on Montana DEQ 303 (d) list of impaired streams.	1. Revise grazing management and/or design project to improve riparian function and sensitive plant habitat. 2. Maintain or improve BLM roads to reduce sediment inputs into stream. Coordinate with Beaverhead County on road maintenance where sensitive plant habitat occurs. 3. Continue working with Montana DEQ and local Watershed Committees in the development and implementation of water quality restoration plans.
*Blacktail Ridge AMP 10147 (I) Acres: 5434	YES	YES	1	YES	YES	1. No resource concerns identified from current authorized uses. 2. Relatively small infestation of spotted knapweed along lower BLM reach and along roads below Cottonwood Creek.	1. Maintain current management of authorized uses. 2. Continue to coordinate weed treatments with private land owners, county and state. The goal is to eradicate these relatively small infestations of spotted knapweed.
<sup>1</sup> The State of Montana, Department of Environmental Quality (DEQ) has been given the responsibility for implementing the Clean Water Act. This responsibility includes making beneficial use determinations. DEQ has completed its evaluation of 303(d) listed streams. Blacktail Deer Creek, West Fork of Blacktail Deer Creek and Sweetwater Creek are on the 303(d) list and have been found to be impaired. Tributary streams in the BTW are not on the 303(d) list, are not priority streams and are not scheduled to be evaluated by DEQ.							

Allotment Name Number Category & BLM acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns (including discernable cause of resource concern)	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Kent- Non AMP 20625 (I) Acres: 796	YES	YES	1	YES	YES	1. No resource concerns related to authorized uses identified. 2. Houndstongue and cheatgrass scattered throughout riparian zone.	1. Continue current management of authorized uses. 2. Treat houndstongue as priorities warrant and resources allow. Release bio-control agent when available.
*Robb Creek AMP 20167 (I) Acres: 6025	YES	YES	1	YES	YES	No resource concerns identified.	Continue current management.
Rock Creek 10512 (I) Acres: 5191	YES	NA	NA	YES	YES	1. Vegetation composition and vigor in lower elevation upland habitat. Overall, BLM land met upland standard.	1. Work with NRCS to revise grazing system and design projects to improve uplands throughout the allotment (private and BLM lands).
Spring Brook 10516 (I) Acres: 6329	NO	NO	1	YES	NO	1. Streambank impacts and vegetative composition in riparian habitat due to livestock grazing. 2. Dysfunctional and/or poorly located water developments. 3. Spotted knapweed infestation along lower part of reaches RU81 and RU82 and along road below these reaches.	1. In coordination with NRCS, revise livestock grazing management and design projects to restore or improve riparian function where streams/wetlands are FAR↓ or NF. 2. Maintain, reconstruct, relocate or remove dysfunctional water developments. 3. Coordinate weed treatments with private land owners, county and state. The goal is to eradicate these relatively small infestations of spotted knapweed.
Sweetwater AMP 10471 (I) Acres: 12178	YES	NO	1	YES	NO	1. Streambank impacts, stream channel incisement, and vegetative composition (juniper and/or disturbance species) in riparian habitat, especially the lower reaches, due to increasing juniper and livestock grazing. 2. Dysfunctional and/or poorly located water developments.	1. Revise livestock grazing management to include rest periods and/or shorter use periods and design projects to improve riparian function/condition. 2. Reduce juniper where feasible and cost effective on lower streams reaches using prescribed fire, herbicide, and/or mechanical treatment. 3. Maintain, reconstruct, relocate or remove dysfunctional water developments.
Red Canyon 00113 (M) Acres: 812	YES	NO	1	YES	YES	1. Excessive hummocking, compaction and reduced sedge cover at spring and seep areas due to livestock grazing.	1. If feasible, install pipeline, watering trough and spring enclosure to protect source at BT299 (two springs) and obtain better distribution within the allotment.
Sweetwater Basin 10518 (M) Acres: 1347	YES	NO	1	YES	YES	1. Livestock trailing and road impacts along RU173 2. Poor location of livestock watering trough along RU173.	1. Revise livestock grazing management to improve riparian function. 2. If feasible, relocate water trough to an off-site location. 3. Maintain or improve BLM roads to reduce sediment inputs into stream.

Allotment Name Number Category & BLM acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns (including discernable cause of resource concern)	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Timber Creek AMP 10533 (M) Acres: 3591	YES	NO	1	YES	YES	1. Streambank impacts, stream channel incisement, and vegetative composition (juniper and/or disturbance species) in riparian habitat, especially the lower reaches, due to increasing juniper and livestock grazing. 2. Houndstongue and cheatgrass scattered throughout riparian zone.	1. Revise livestock grazing management to include rest periods and/or shorter use periods and design projects to improve riparian function/condition. 2. Reduce juniper where feasible and cost effective on lower streams reaches using prescribed fire, herbicide, and/or mechanical treatment. 3. Treat houndstongue as priorities warrant and resources allow. Release bio-control agent when available.
Anderson 20105 (C) Acres: 38	YES	NA	NA	YES	YES	1. No resource concerns identified on parcels defined as Anderson Allotment. 2. No fences to control livestock movement from administratively defined allotment boundaries to unleased areas.	1. Consider adjusting allotment boundary to include areas of the unleased land into the Anderson Allotment or constructing fences necessary to control livestock within authorized areas.
Axes Canyon 10535 (C) Acres: 833	YES	NA	NA	YES	YES	No resource concerns identified.	Continue current management
*Bench Field SGC 20690 (C) Acres: 2943	YES	YES	1	YES	YES	1. No resource concerns identified from current authorized uses. 2. Recent use and improvement of closed road within Blacktail Mtns WSA	1. Continue current management of authorized uses. 2. Meet with adjacent landowner(s) to investigate and gain information on road use.
Red Canyon Iso. 10517 (C) Acres: 812	YES	YES	1	YES	YES	No resource concerns identified.	Continue current management.
Robb Crk. Non- AMP 20631 (C) Acres: 747	YES	YES	1	YES	YES	No resource concerns identified.	Continue current management in coordination with the Robb Ledford Game Range.
Spring Brook Iso. 30677 (C) Acres: 1701	YES	NO	NO	YES	NO	1. Streambank impacts, decadent woody vegetation and reduced sedge along RU100 and RU101 due to livestock grazing. 2. Sweetwater Creek on Montana DEQ 303 (d) list of impaired streams.	1. Revise livestock grazing management and design projects to improve or protect riparian habitat. 2. Continue working with Montana DEQ and local Watershed Committees in the development and implementation of water quality restoration plans.
Spear Place 10528(C) Acres: 317	YES	YES	1	YES	YES	No resource concerns identified.	Continue current management.

Allotment Name Number Category & BLM acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns (including discernable cause of resource concern)	ID Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Sweetwater Iso. 20666 (C) Acres: 291	YES	NA	NA	YES	YES	1. Vegetation composition and vigor and amount of bare soil in lower elevation upland habitat. Overall, upland standard was met.	1. Look for opportunities to improve upland conditions in Sweetwater Isolated when revising livestock management in adjacent Sweetwater AMP Allotment with same permittee.
Timber Crk. Iso. 10681 (C) Acres: 68	YES	YES	1	YES	YES	No resource concerns identified.	Maintain current management.
Wire Field SGC 20656 (C) Acres: 1732	YES	NA	NA	YES	YES	1. No resource concerns identified. 2. Wire from old dysfunctional fences scattered on allotment.	1. Continue current management. 2. Look for opportunities to clean up wire and haul to land fill (volunteers, laborers, etc.)
Stock Driveway and other unleased 9999 Acres: 6276	YES	NO	1	YES	NO	1. Excessive hummocking, reduced sedge cover and increased bare ground at Cooks Lake and adjacent spring areas from livestock use. 2. Limber pine dead and dying due to white pine blister rust and/or mountain pine beetle.	1. Consider combining the unleased area with adjacent existing allotments or excluding the unleased area or portions of it from livestock grazing by constructing fences necessary to control livestock movement from adjacent allotments. If parcels are included with adjacent existing allotments, coordinate with Mt DNRC and affected permittees to include mandatory Terms and Conditions into Term Grazing Permits that will allow improvement of riparian conditions. 2. Consider designating the unleased Stock Driveway or portions of it as a Resource Reserve Allotment and constructing the fences necessary to control livestock movement.
Unallotted Acres: 4172	YES	YES	1	YES	YES	No resource concerns identified.	Maintain current management.

<sup>1</sup> The State of Montana, Department of Environmental Quality (DEQ) has been given the responsibility for implementing the Clean Water Act. This responsibility includes making beneficial use determinations. DEQ has completed its evaluation of 303(d) listed streams. Blacktail Deer Creek, West Fork of Blacktail Deer Creek and Sweetwater Creek are on the 303(d) list and have been found to be impaired. Tributary streams in the BTW are not on the 303(d) list, are not priority streams and are not scheduled to be evaluated by DEQ.

### Scope and Scale

The issue of scale must be kept in mind in evaluating each standard. It is recognized that isolated sites within a landscape may be FAR and not meeting the standards; however, considering broader scope and scale, the area may be in PFC; or isolated sites may be PFC, but overall the resource in the allotment or area is FAR and not meeting the standards. No single indicator provides sufficient information to determine land health. They are used in combination to provide information necessary to make a land health determination.

## **Standard # 1: Upland Health**

One allotment is **not** meeting this standard:

1. Spring Brook

Trend studies completed for the Spring Brook Allotment and comparisons with Ecological Reference Areas generally showed a static or declining vegetative trend or ecological state for sites evaluated within grazing distance from existing water sources. Conditions improve as the distance from the water increases. Shifts in vegetation composition from preferred herbaceous species to less desirable species that are indicative of sustained spring and early summer livestock use is prevalent in some upland areas of the allotment. Some soil erosion is also occurring on upland areas. Livestock impacts have been determined to be one of the contributing factors in not meeting the upland standard the Spring Brook Allotment.

## **Standard # 2: Riparian Health**

Seven allotments and the unleased Stock Driveway are **not** meeting this standard:

1. Blacktail Road Trail
2. Spring Brook
3. Sweetwater AMP
4. Red Canyon
5. Sweetwater Basin
6. Timber Creek
7. Spring Brook Isolated
8. Stock Driveway (unleased)

The riparian areas that did not meet the standards were determined to be FAR with either a static or downward trend or non-functional. Riparian habitat that is FAR with an upward trend is considered to be meeting the riparian health standard because it is making progress toward the goal of PFC.

Generally, the riparian areas that did not meet the standard had altered vegetative composition along the riparian zone and/or reduced bank stability due to impacts from livestock trailing and/or grazing. Increasing density of Rocky Mountain juniper and decreasing deciduous woody riparian vegetation (aspen, willow, red-osier dogwood, etc.) was also a significant riparian concern and cause for failure to meet the standard, specifically in the lower reaches of Timber Creek, Elk Gulch, Little Elk Gulch and Moose Creek. Several of the lower reaches of these major streams were also deeply entrenched due to a combination of factors explained in the assessment report. Most riparian areas had some level of infestation of houndstongue and/or cheatgrass. The highest infestation levels were found in the Kent-Non AMP and Timber Creek Allotments.

Livestock impacts have been determined to be one of the contributing factors in not meeting the riparian standard in each of these allotments and the unleased Stock Driveway.

### **Standard # 3: Water Quality**

Two allotments are **not** meeting this standard:

1. Blacktail Road Trail
2. Spring Brook Isolated

The BTW is primarily located within the Beaverhead River Watershed, but includes portions of the Ruby Watershed. According to DEQ's 2006 Draft Water Quality Report, three impaired streams occur within the Blacktail Assessment area and do not meet water quality standards. Two of these streams, Blacktail Deer Creek and West Fork of Blacktail Deer Creek are tributaries to the Beaverhead River. Sweetwater Creek, the third impaired stream, is a tributary of the Ruby River. The Water Quality and Reference Sections of the BTW Assessment Report detail the beneficial use impairments, probable causes and probable sources. Blacktail Deer Creek runs through the Blacktail Road Trail Allotment and Sweetwater Creek runs through Spring Brook Isolated Allotment.

Conditions observed by the IDT and noted in the field reports associated with Blacktail Road Trail and Spring Brook Isolated Allotments, include impacts from livestock grazing and sediment input from road use and maintenance. Livestock impacts on BLM administered lands are under the control of the Authorized Officer and may be contributing to water quality impairment. The Water Quality Restoration Plans and Total Maximum Daily Loads for the Ruby and Beaverhead Watershed are scheduled for completion between 2007 and 2009.

### **Standard # 4: Air Quality**

All the allotments assessed within the watershed are meeting this standard.

### **Standard # 5: Biodiversity**

Biodiversity is closely related to upland, including forests, and riparian health.

Four allotments and the unleased Stock Driveway are not meeting this standard:

1. Blacktail Road Trail
2. Spring Brook
3. Spring Brook Isolated
4. Sweetwater AMP
5. Stock Driveway (unleased)

Riparian conditions were the primary cause of not meeting the biodiversity standard within the Blacktail Road Trail, Spring Brook, Spring Brook Isolated, and Sweetwater AMP Allotments. Livestock impacts have been determined to be a contributing factor in not meeting the biodiversity standard in each of these allotments. Sedimentation associated with road maintenance was also a contributing factor for not meeting the standard on the Blacktail Road Trail Allotment. Forest health was the primary cause of the unleased Stock Driveway as well as riparian concerns due to unauthorized livestock use. Much of the limber pine population is dead or dying due to mountain pine beetle (on mature trees) and/or white pine blister rust (on seedlings/ saplings). The conversion of deciduous woody vegetation to Rocky Mountain juniper is also a contributing factor in not meeting the biodiversity standard within the Sweetwater AMP Allotment.

## **NEPA Documentation**

Before any of the above stated recommendations can be implemented, NEPA documentation will be completed to analyze a reasonable range of alternatives to address resource concerns found during the Assessment. The Dillon Field Office will be working on the Blacktail Environmental Assessment (MT-050-06-10) during the winter and spring of 2007.

Implementation of new plans will begin in 2007, but due to budgetary and human resource constraints, complete implementation of these plans may take several years.

For more information, please review the Blacktail Watershed Assessment Report or contact the Dillon Field Office (406) 683-8000.

## Authorized Officer's Determination

Based on my review of the Assessment Team's recommendations and other relevant data and information, I have determined that the following 13 allotments and the unallotted area within the Blacktail Watershed **meet** all five of the Standards for Rangeland (Land) Health and Guidelines for Grazing Management for BLM lands in Montana:

1. Blacktail Ridge AMP
2. Kent Non-AMP
3. Robb Creek AMP
4. Rock Creek
5. Anderson
6. Axes Canyon
7. Bench Field SGC
8. Red Canyon Isolated
9. Robb Creek Non-AMP
10. Spear Place
11. Sweetwater Isolated
12. Timber Creek Isolated
13. Wire Field SGC
14. Unallotted Parcels

I have determined that the following seven allotments and the unleased Stock Driveway **do not** meet the Standards for Rangeland Health and Guidelines for Grazing Management for BLM lands in Montana:

1. Blacktail Road Trail
2. Spring Brook
3. Sweetwater AMP
4. Red Canyon
5. Sweetwater Basin
6. Timber Creek
7. Spring Brook Isolated
8. Stock Driveway (unleased)

I have determined that current livestock management is a significant causal factor in the land health standards **not being met** on each of the seven above listed allotments and the unleased Stock Driveway.

Pursuant to 43 CFR 4180.2(c), the Authorized Officer shall take appropriate action as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards. Appropriate action means implementing actions that will result in significant progress toward fulfillment of the standards. Practices and activities subject to standards and guidelines include the development, modification, or revision of AMPs, establishment of terms and conditions of permits, leases and other grazing authorizations, and range improvement activities such as vegetation manipulation, fence construction and development of water.

BLM Manual Handbook H-4180-1, Rangeland Health Standards Handbook, provides guidance for conducting watershed-based Land Health Assessments. It states "If the Land Health Standards are not being achieved because of a causal factor other than current livestock grazing management, you must consult other program guidance for the appropriate steps to be taken to ensure that progress toward meeting Standards is made."

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Dillon Field Manager

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Date